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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,735	12/30/2003	Raul Salvi	SC12575TS/46-049	7542

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EXAMINER	
TRAN, PABLO N	

ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
08/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,735	SALVI ET AL.	
	Examiner	Art Unit	
	Pablo N. Tran	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _ is/are allowed.

6)☒ Claim(s) *1,3-7,9-12 and 15-19* is/are rejected.

7)☐ Claim(s) *2,8,13 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-7, 9-12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manku et al. (hereinafter "Manku", US Pat No 6,973,297) and in view of Younis et al. (hereinafter "Younis", US Pat. No 6,134,430).

As per claim 1, Manku disclosed a system for use in a portable communications device comprising a digital signal processor (fig. 6) for processing a digital source input and providing a digital processed bit stream; a digital-to-analog converter (fig. 6/no. 150, 168) for converting the digital processed bit stream and providing at least one analog signal; and a power management controller (fig. 5/no. 118) within the DSP for interpreting a plurality of control parameters (col. 9/ln. 5-42).

Manku disclose such voltage/current requirements of the converters based upon the analog signals but not explicitly adjusting a bias current used by the DAC. However, Younis disclose such teaching as claimed (claim 8, claim 15, col. 4/ln. 51-64, also see the search report, filed 07/07/09). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of invention for Manku to utilize such teaching, as taught by Younis, in order to improve the dynamic range and linearity of the converters.

As per claim 3, the modified system of Manku and Younis further disclosed at least one DAC filter (see Manku, fig. 6/no. 140, 146, 160, and 164,).

As per claim 4, the modified system of Manku and Younis further disclosed a mixer (see Manku, fig. 6/no. M1I, M1Q, M2I, M2Q) for providing an intermediate frequency (IF) signal from the at least one analog signal; and a power amplifier for amplifying the IF signal from the mixer (see Manku, col. 2/ln. 2-9).

As per claims 5, 7, 9, 16, and 18, as stated above in claim 1, the modified system of Manku and Younis further disclosed the bias current of the DAC filter, mixer and power amplifier can be dynamically controlled by the power management controller in order to minimize current drain of the portable communications device (see Younis, abstract, col. 4/ln. 51-64, also see the search report, filed 07/07/09).

As per claim 6, the modified system of Manku and Younis further disclosed the IF signal operates at radio frequency (see Manku, col. 2/ln. 2-9).

As per claims 10 and 19, the modified system of Manku and Younis further disclosed the power management controller further controls supply bias to an audio processing system in a receiver of the portable communications device (see Manku, col. 1/ln. 9, see Younis, col. 4/ln. 51-64)

As per claims 11 and 17, the modified system of Manku and Younis further disclosed a method for managing power to a communications system having at least one digital-to-analog converter (fig. 6) comprising the steps of initializing the

components used within a portable communications system; receiving an incoming digital input stream at a digital signal processor (fig. 6); determining the digital multiple access protocol (MA) used in the digital input stream (col. 12/ln. 17-23); generating a processed digital signal from the DSP (fig. 6); converting the processed digital signal to an analog signal using a DAC (fig. 6); and controlling a voltage supply used by the DAC based upon the MA, noise requirements and intermodulation requirements of the portable communications system.

Manku disclose such voltage/current supply requirements of the converters based upon the MA, noise requirements and intermodulation requirements of the portable communications system but not explicitly a bias current used by the DAC. However, Younis disclose such teaching as claimed (claim 8, claim 15, col. 4/ln. 51-64, also see the search report, filed 07/07/09). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention for Manku to utilize such teaching, as taught by Younis, in order to improve the dynamic range and linearity of the converters.

As per claim 12, the modified system of Manku and Younis further disclosed disclose the supply bias is controlled by a power management controller in the DSP (see Manku, fig. 5/n. 118).

As per claim 15, the modified system of Manku and Younis further disclosed the DAC is in an audio processing system (see Manku, col. 1/ln. 19).

As per claim 18, the modified system of Manku and Younis further disclosed wherein one or more control parameter maybe independently controlled (see Manku, fig. 6).

Allowable Subject Matter

3. Claims 2, 8, and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for Published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see httpr//pair-directauspto.gov. Should

You have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in USA or CANADA) or 571-272-1000.

February 16, 2009

/Pablo N Tran/
Primary Examiner, Art Unit 2618